## Maryland

Fishery Resources Office



Shortnose sturgeon Credit: USFWS



Deploying stationary receiver Credit: USFWS



Tagged shortnose sturgeon Credit: USFWS

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## Shortnose Sturgeon in the Potomac River

In April of 2009, movements of a telemetry tagged shortnose sturgeon were tracked in the Potomac River from Cole's Point to just above Washington, D.C. at Fletcher's Boathouse, a 93 mile (150 km) trek. The same female shortnose sturgeon made a pre-spawning migration in April of 2006.

While populations of the federally endangered shortnose sturgeon (*Acipenser brevirostrum*) likely occurred in all major Atlantic Coast rivers from Canada to northern Florida, there are few historically documented occurrences in the Potomac River. Colonists and early Americans rarely distinguished shortnose sturgeon from Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) in their records. However, there is a Potomac River shortnose sturgeon specimen, collected in Washington, D.C. in March of 1876, archived at the Smithsonian Institute. In recent years, reports have been received by the U.S. Fish and Wildlife Service of 12 shortnose sturgeon caught by commercial fisherman in the Potomac River.

A study was conducted by the U.S. Geological Survey in partnership with the U.S. Fish and Wildlife Service and the U.S. Park Service from March 2004 to July 2007 to assess the status and life history of shortnose sturgeon in the Potomac River. Telemetry tags were applied to 2 shortnose sturgeon during the study and 1 additional shortnose sturgeon shortly after the completion of the study. All three of the tagged shortnose sturgeon were egg-bearing adult females. Results of the study indicate that there is adequate habitat for foraging, wintering, and spawning in the Potomac River. Based on catch per unit effort data, shortnose sturgeon abundance is lower than other rivers with reproducing populations. However, it is possible that a population built from either remnant natal fish or colonizers could become sustainable.

The female exhibiting upstream movements, has been tracked between the Route 301 Bridge and Chain Bridge since the fall of 2005 and appears to be a year round resident of the Potomac River. From September 2005 to June of 2007, she spent most of her time between river km 110 and 140 (Maryland Point and Craney Island) with one foray up to river km 187 (near Chain Bridge) in April of 2006. She spent approximately 5 days, from April 9 to April 14, 2006, in what is assumed to be spawning habitat. Water temperature climbed from 12.6° C to 16.0 ° C during that time.

On April 9, 2009, the same female shortnose sturgeon was captured by commercial fishermen at Cole's Point in Virginia (river km 35). She then spent 11 days travelling upstream in the Potomac River from Cole's Point to Chain Bridge (river km 187). She clocked an average speed of 0.60 km per hour with swimming speeds as high as 2.6 km per hour. She arrived at Fletcher's boat house (just below Chain Bridge) early on the morning of April 20 and swam back down river on the

evening of April 21. During the two days that the female shortnose sturgeon spent on the "spawning grounds", water temperature ranged from 13.4° C to 14.3° C.

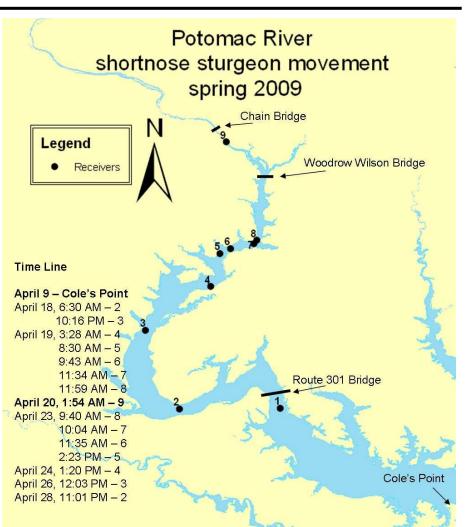
Although there is no concrete evidence that shortnose sturgeon spawning was successful in the Potomac River, there is confirmation of suitable adult habitat. If indeed this female sturgeon made spawning runs in 2006 and 2009, her behavior would be consistent with that of female sturgeon in other northern populations which spawn every 3 to 5 years.

Unlike Atlantic sturgeon, which migrate up and down the coast and only enter freshwater to spawn, shortnose sturgeon spend the majority of their time in brackish and freshwater and rarely venture into the open ocean. While no tributaries to the Chesapeake Bay are currently known to support a reproducing population of shortnose sturgeon, 82 have been reported in the Chesapeake Bay and its tributaries as part of the Maryland Atlantic Sturgeon Reward Program.

Questions persist about where these shortnose sturgeon in the Bay come from and where they go to spawn. The Maryland Fishery Resources Office of the U.S. Fish and Wildlife Service continues work to unravel the mystery of this endangered species in both the Potomac River and the upper Chesapeake Bay.

U.S. Fish and Wildlife Service http://www.fws.gov 1 800 344 WILD

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Shortnose sturgeon movement in the Potomac River Credit: USFWS